A Teacher's Guide to Updating Multiple TI-Nspire™ Handhelds

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Introduction

The TI-Nspire™ handhelds offer an upgradeable operating system (OS) that allows TI to periodically offer enhanced features for the product. This guide outlines four methods that can be used to update the OS in class sets of TI-Nspire handhelds.

OS updates are posted online where they can be downloaded and transferred to your handhelds using the tools and processes outlined in this guide. Be sure to check for updates each semester so you do not miss the latest improvements. Information about OS updates can be found at **education.ti.com/nspire/update**.

Don't forget to update your TI-Nspire™ computer software at the same time.

- If you use TI-Nspire or TI-Nspire™ CAS computer software, be sure to update these applications at the same time to ensure compatibility when you send and receive TI-Nspire™ documents between your computer and handheld.
- Once a TI-Nspire™ document is opened in a newer version of computer software or on a handheld with a newer version of the OS, the document may convert to the latest version and may not be reopened in the earlier version.
- Once a TI-Nspire handheld is updated to the latest version of the OS, it can only be reverted to v3.1; it cannot revert to any earlier version of the OS.
- To load the latest OS version, you will need to have 15MB of free space for the OS file. To free space, please delete or transfer files to a computer.

There are several methods for updating class sets of handhelds:

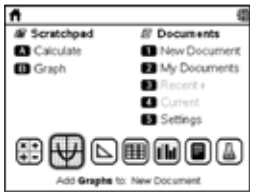
- Method I: Using Unit-to-Unit Transfer
- Method II: Using TI-Nspire™ Navigator™ Teacher Software
- Method III: Using TI-Nspire™ Docking Stations

Each TI-Nspire handheld uses a distinct operating system file:

TI-Nspire handheld	TI-Nspire operating system file
TI-Nspire™ CX handheld	TI-Nspire.tco
TI-Nspire™ CX CAS handheld	TI-Nspire.tcc
TI-Nspire handheld (Touchpad and Clickpad)	TI-Nspire.tno
TI-Nspire CAS handheld (Touchpad and Clickpad)	TI-Nspire.tnc

Get Started

1. TI-Nspire™ keypads must be snapped in place to proceed with OS updates.
2. Find the version on the handhelds by first identifying your home screen below and following the directions beside it.

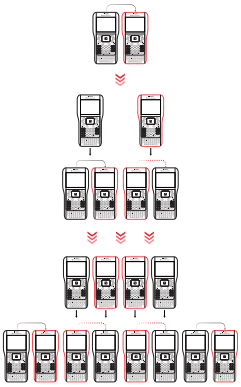
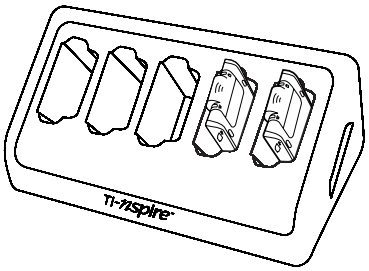
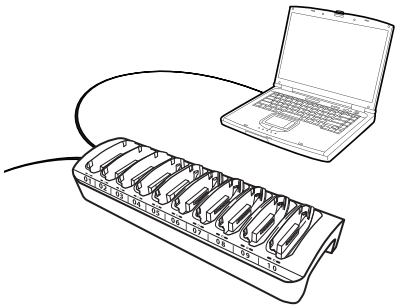
Version	Home Screen	Find the OS version by
V1.0 to v1.7		Home > 8: System Info > 5: About
V2.0 to 3.1		Home > 5: Setting > 4: Status

3. Depending on your TI-Nspire handheld and current OS version, you may need to update directly to the latest OS or perform a series of OS updates. Please see the chart below for your specific update path. Once you identify your update path, proceed to the Method Comparison Chart to identify the best way for updating your operating system.

Handheld Type	Current OS	Update Path	Obtain OS at
TI-Nspire CX Handheld	3.0 to 3.1	Update to v3.2 directly	**education.ti.com/nspire/update/tco**
TI-Nspire CX CAS Handheld	3.0 to 3.1	Update to v3.2 directly	**education.ti.com/nspire/update/tcc**
TI-Nspire Handheld (Touchpad and Clickpad)	1.1 to 1.3	Update handhelds to v1.7 first, v3.1 second, and v3.2 third	V1.7 **education.ti.com/nspire/update/tno17** V3.1 **education.ti.com/nspire/update/tno31** V3.2 **education.ti.com/nspire/update/tno**
	1.4 to 2.1	Update handhelds to v3.1 first, and v3.2 second	V3.1 **education.ti.com/nspire/update/tno31** V3.2 **education.ti.com/nspire/update/tno**
	3.0 to 3.1	Update to v3.2 directly	**education.ti.com/nspire/update/tno**
TI-Nspire CAS Handheld (Touchpad and Clickpad)	1.1 to 1.3	Update to v1.7 first, and v3.2 second	V1.7 **education.ti.com/nspire/update/tnc17** V3.2 **education.ti.com/nspire/update/tnc**
	1.4 to 3.1	Update to v3.2 directly	**education.ti.com/nspire/update/tnc**

Method Comparison Chart

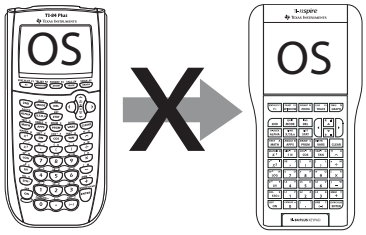
A brief overview of each method is provided in the following chart.

	Method I: Using Unit-to-Unit Transfer	Method II: Using TI-Nspire™ Navigator™ Teacher Software	Method III: Using TI-Nspire™ Docking Stations	
Required Software	TI-Nspire™ or TI-Nspire CAS Student or Teacher Software	TI-Nspire or TI-Nspire CAS Navigator Teacher Software	TI-Nspire or TI-Nspire CAS Teacher Software	
Required Hardware	Unit-to-Unit Cable(s)	TI-Navigator™ Access Point TI-Nspire™ Navigator™ Cradles or TI-Nspire™ CX Wireless Network Adapters	TI-Nspire Docking Station connected to a teacher's computer and a power strip or wall outlet.	
Handheld Compatibility	All TI-Nspire™ handhelds	All TI-Nspire handhelds	TI-Nspire Docking Station All TI-Nspire handhelds	TI-Nspire CX Docking Station TI-Nspire CX and TI-Nspire CX CAS handhelds only
Compatible Operating Systems	Any OS version	OS Version 1.7.1 or later	OS version 2.1 or later	OS version 3.0 or later
Connected Handhelds	Various	Up to 40 handhelds	Up to 50 handhelds	
Set-up Image	Update 1 unit Update 2 more Update 4 more  Update 8 more…etc.			
Notes	Each handheld that receives an OS update is used to update another handheld. Continue until all are updated and rebooted.		You need version 2.1 or later of TI-Nspire and TI-Nspire CAS Teacher Software	

Helpful Tips

Turn off Press-to-Test for the TI-84 Plus (with TI-84 Plus keypad in place) prior to swapping keypads.

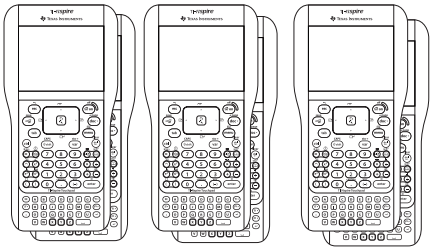
- If the keypad is switched while *Press-to-Test for the TI-84 Plus* is active, you may receive an "Invalid Keypad" error when you insert the TI-Nspire keypad.
- The following web page provides links to instructions for disabling *Press-to-Test for the TI-84 Plus* or *Test Guard* functionality. Visit **education.ti.com/educationportal/sites/US/productDetail/us_testguard_20.html**.



TI-84 Plus OS updates are included in the TI-Nspire OS process.

- It is not possible to transfer a TI-84 Plus OS from a (regular) TI-84 Plus to a TI-Nspire with TI-84 Plus keypad inserted.

NOTE **Involve your students in this process. In addition to saving you time, it may provide student leadership opportunities, or opportunities to recognize students' technical skills and ability. You may even want to illustrate mathematics concepts that are inherent in the process.**



Knowing when to disconnect the receiving handheld will help you quickly update a large number of handhelds.

- Updating the handheld OS involves two steps:
  1. Receiving the OS installation file from the sending handheld or computer
  2. Disconnecting and waiting while the OS file installs the OS and the handheld reboots
- During the second step, the receiving handheld can be disconnected and a new handheld connected. You can now start another OS transfer to a new handheld.
- It is safe to unplug the receiving handheld when the installation progress bar can be seen on the receiving handheld.

Questions and Assistance

If you have questions about any aspect of the processes described in this document, the software and connectivity tools or need troubleshooting assistance, contact TI-Cares.

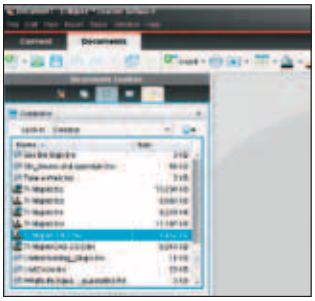
In the U.S. and Canada:
call: 1.800.TI.CARES (1.800.842.2737)
email: ti-cares@ti.com

Method I

Step by Step: Sending Updates Using Unit-to-Unit Transfer

» Download the latest OS from the URLs provided from the **Get Started chart** on Page 3. Save the OS to a location that will be easy to remember, such as your Desktop, so that it's easy to find when you transfer it to the handhelds.

» Use TI-Nspire™ Teacher Software or TI-Nspire™ Student Software to update a single TI-Nspire™ handheld to act as the "seed" or "sending" unit for the unit-to-unit OS transfer. In the software, select the Content Explorer tab (far right) in the Documents Toolbox. In the Computer files window, find the TI-Nspire™ OS file that you downloaded to your computer.



» Connect the TI-Nspire "seed" handheld to your computer using a USB cable. The TI-Nspire handheld should appear in the Connected Handhelds window at the bottom of the Content Explorer pane.

» Drag the TI-Nspire OS file you saved to your computer to the TI-Nspire handheld that is listed in the Connected Handhelds window. You will be notified that any unsaved documents will be lost. If you wish to proceed, select **YES**. The OS update will begin. When the handheld restarts, you will be ready to use this TI-Nspire handheld as your "seed" or "sending" unit to update other TI-Nspire handhelds.

» Save any unsaved documents on the "receiving" handheld.

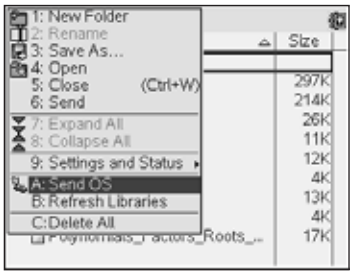
» Connect the handhelds using a unit-to-unit USB cable that comes with the purchase of TI-Nspire or TI-Nspire CAS handhelds. It does not matter which connector (A or B) plugs into which unit.

! TIP **This is often a convenient time to check and replace batteries on all handhelds or those that have low batteries.**

» Ensure that the "receiving" handheld is on.

» On the "sending" handheld, open the Document Browser: **HOME>2: My Documents** (If you are still using OS version 1.7 or previous, go to **HOME>7: My Documents**).

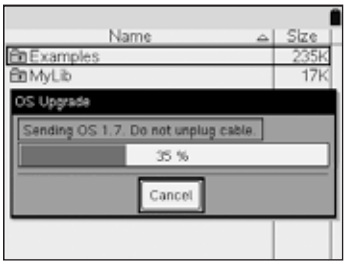
» Press **MENU**, then **A: Send OS**



» Wait for the handheld to send the file. This process takes about five minutes.

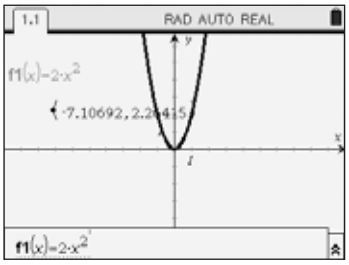
! TIP **If the transfer doesn't occur, you may have a faulty unit-to-unit connection or USB cable. Check your connection or try another cable.**

Sending Unit



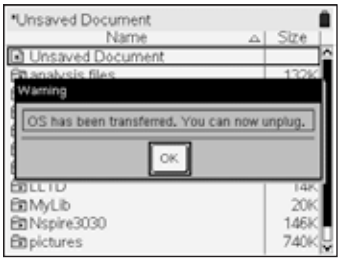
Receiving Unit

(Nothing changes on the receiving unit.)

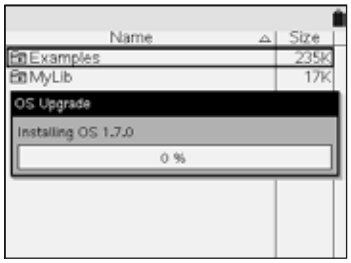


» Upon notification that "You can now unplug," it is safe to disconnect the mini-USB cable from the "receiving unit" while the OS installs.

Sending Unit



Receiving Unit



» Once the OS installation is complete on the "receiving unit," you may plug it into another handheld to repeat the process and update another handheld. It becomes another "seed."

! TIP **Spread out your handhelds on a large table so you can quickly scan all "receiving" handhelds for the progress bar.**

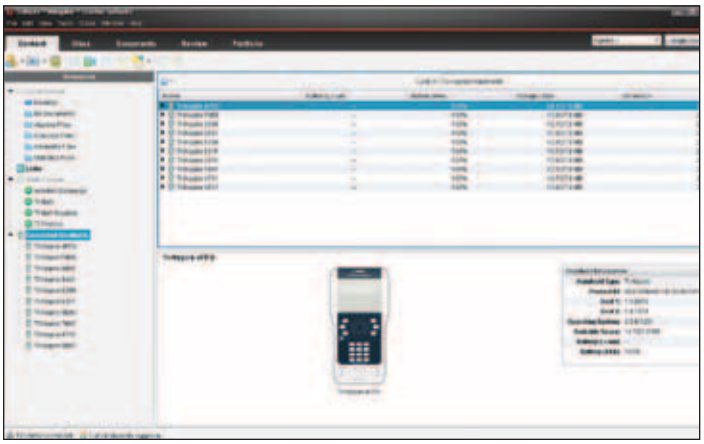
Method II

Step by Step: Sending Updates Using TI-Nspire™ Navigator™ Teacher Software

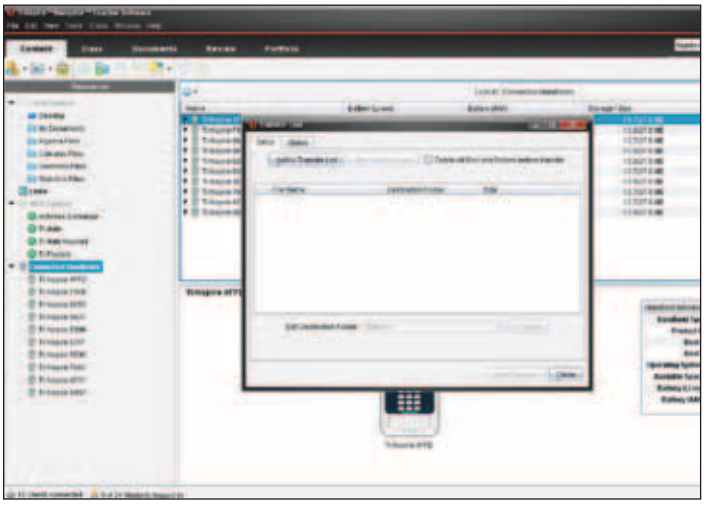
You can install or update the operating system (OS) on a connected handheld using the **Transfer Tool**, but be sure to **End Class** before following these steps.

» Download the latest OS from the URLs provided from the **Get Started chart** on Page 3. Save the OS to a location that will be easy to remember, such as your Desktop, so that it's easy to find when you transfer it to the handhelds.

» Open your TI-Nspire™ or TI-Nspire CAS Navigator™ Teacher Software. In the left panel of the Content workspace, you should see all connected handhelds. If you click on Connected Handhelds you can verify the OS on each handheld by clicking on each handheld.

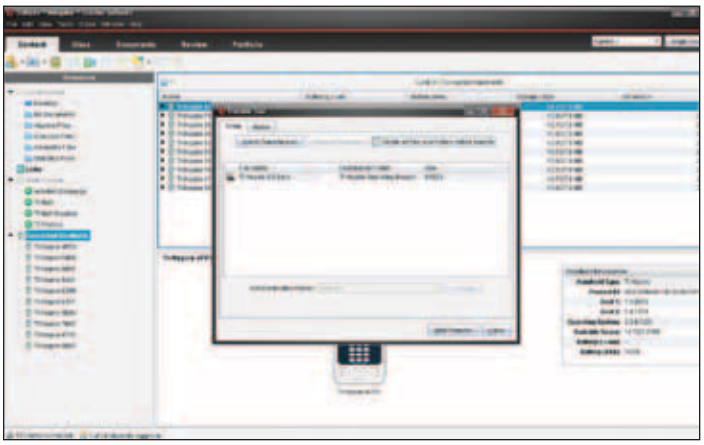


» From the Tools Menu, select **Transfer Tool**. Click on **Add to Transfer List**.

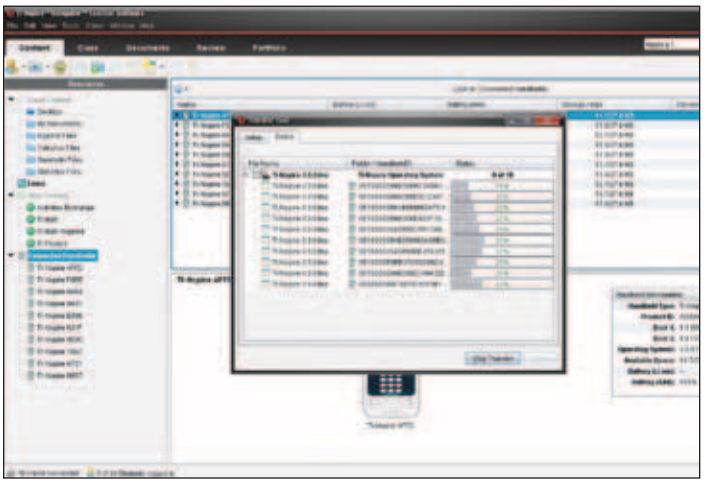


» Navigate to the folder where the OS file is located.

» Select the file name and press the **Select** button. The OS file name will appear in the Transfer Tool queue.



» Click **Start Transfer**. A progress screen is displayed.



» The OS transfer will be sent to any TI-Nspire handheld that is associated with your TI-Navigator™ Access Point.

Method III

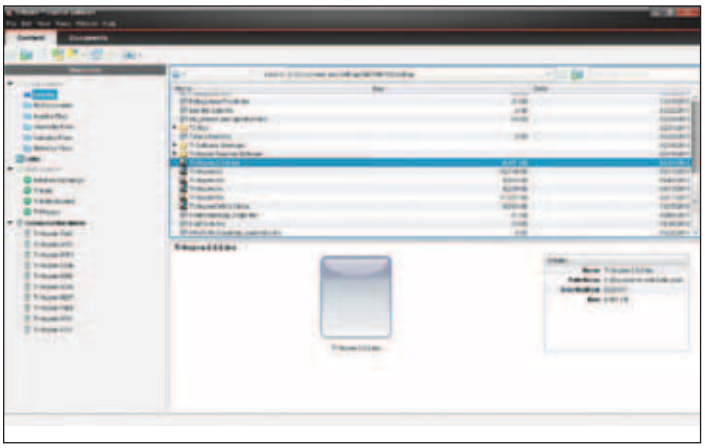
Step by Step: Sending Updates Using TI-Nspire™ Docking Stations

» Download the latest OS from the URLs provided from the **Get Started chart** on Page 3. Save the OS to a location that will be easy to remember, such as your Desktop, so that it's easy to find when you transfer it to the handhelds.

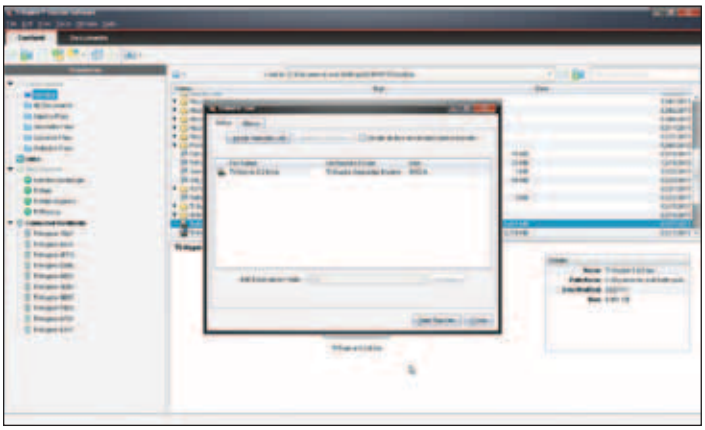
» Put the handhelds in the docking station(s). You can transfer the OS to up to 50 handhelds if you have multiple docking stations. Make sure the docking stations are connected to the computer via a USB cable and connected into a power source.

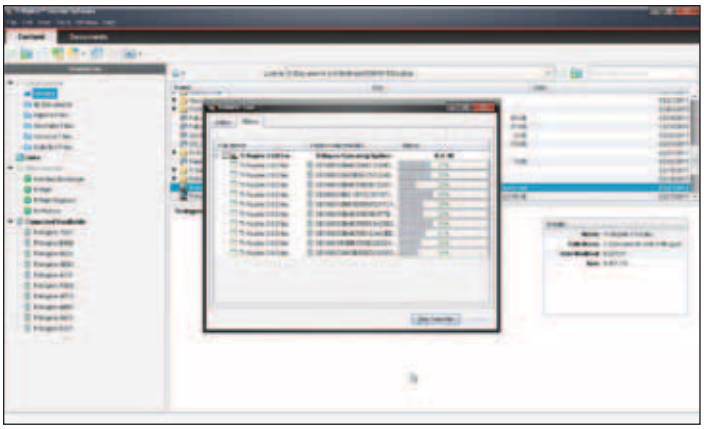
» Open your TI-Nspire™ or TI-Nspire CAS Teacher Software. In the left panel of the Content Workspace, you should see all connected handhelds. If you click on **Connected Handhelds** you can verify the OS on each handheld by clicking on each handheld.

» Locate the current OS that you saved to your computer by clicking on the appropriate drive in the Resources section. Drag and drop the OS file to **Connected Handhelds** in the left panel.



» Once the Transfer Tool opens, press **Start Transfer**. As the OS is being transferred, the green light on the Docking Station will blink and you will see the green updating bar in the computer software.





» When the transfer is complete, the green light on the TI-Nspire Docking Station will be in solid green and the handheld can be removed. If you have any other handhelds that need to be updated, place them in the open slots and they will immediately begin downloading the new OS. An entire class set of 30 handhelds should take around 15 minutes to update using one docking station if you continually switch the handhelds out as each one finishes updating.

» When all handhelds are updated, click **Stop Transfer**.

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